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TAKAI, et al., "Engineering of the major house dust mite allergen Der f 2 for allergen-specific immunotherapy," Nature Biotechnology 15:754-58 (1997).							therapy," <i>Nature</i>		
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		3,645,852	Axen, et al.	02-29-1972	
		3,720,760	Bennich, et al.	02-07-1984	
		4,535,010	Axen, et al.	08-13-1985	
		4,659,678	Forrest, et al.	04-21-1987	
		4,849,337	Calenoff, et al.	07-18-1989	
		5,091,318	Anawis, et al.	02-25-1992	
		5,486,452	Gordon, et al.	01-23-1986	
		5,314,991	Oka, et al.	05-24-1994	
		5,496,554	Oka, et al.	03-05-1996	
		5,558,869	Burks, Jr., et al.	09-24-1996	3
		5,731,157	Miller, et al.	03-24-1998	
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	1	AAS, et al., "	Physico-chemical propertie	s and specific activity of a purified a	allergen (codfish)," Dev. Biol. Stand				
		29:90-98 (19	75).						
		Abstracts 585-592, J. Allergy Clin. Immunol. 97, January 1996.  Abstracts 765-772, J. Allergy Clin. Immunol. 95, January 1995.  *ALENIUS, et al., "The main IgE-binding epitope of a major latex allergen, prohevein, is present in its N-terminal 43-amino acid fragment, hevein," J. Immunol. 156(4):1618-1625 (1996).							
		*ALENIUS, et 25(7):659-66		rubber tree (Hevea brasiliensis) is a i	major latex allergen," Clin. Exp. Alle	rgy			
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BOCK, "Natural history of severe reactions to foods in young children," J. Pediatr. 107:676-680 (1985).

BOULET, et al., "Inhibitory effects of an anti-IgE antibody E25 on allergen-induced early asthmatic response," Am J

BEVIER, "Flea Allergy Dermatitis Testing Breakthrough," Canine Practice 22(2-3):49-50 (1997).

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882:97-105 (1986).

Respir Crit Care Med 155:1835-1840 (1997).

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ſ		OTHER ART NON PATENT LITERATURE DOCUMENTS
Examiner's Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
		BSAC Working Party, "Position paper on allergen immunotherapy," Clin Exp Allergy 23:1-44 (1993).
		BURKS, "Allergenicity of peanut and soybean extracts altered by chemical or thermal denaturation in patients with atopic dermatitis and positive food challenges," <i>J Allergy Clin Immunol</i> 90(6 pt 1):889-97 (1992).
		BURKS, et al., "Atopic dermatitis: clinical relevance of food hypersensitivity reactions," J. Pediatr. 113:447-451 (1988).
		BURKS, et al., "Mapping and mutational analysis of the IgE-binding epitopes on Ara h 1, a legume vicilin protein and a major allergen in peanut hypersensitivity," Eur. J. Biochem. 245:334-339 (1997).
·		BURKS, et al., "Recombinant peanut allergen Ara h I expression and IgE binding in patients with peanut hypersensitivity," J. Clinical Invest. 96:1715-1721 (1995).
		BURKS, et al., "Allergens, IgE, mediators, inflammatory mechanisms. Epitope specificity and immunoaffinity purification of the major peanut allergen, Ara h I," J Allergy Clin Immunol. 93(4):743-50 (1994).
		BURKS, et al., "Epitope specificity of the major peanut allergen, Ara h II," J Allergy Clin Immunol. 95(2):607-11. (1995).
		BURKS, et al., "Identification and characterization of a second major peanut allergen, Ara h II, with use of the sera of patients with atopic dermatitis and positive peanut challenge," <i>J Allergy Clin Immunol.</i> 90(6 Pt 1):962-9 (1992).
		BURKS et al., "Identification of a second major peanut allergen in patients with atopic dermatitis and peanut hypersensitivity," J. Allergy Clin. Immunol. 87:211 (1991).
		BURKS, et al., "Production of murine monoclonal (mAb) antibodies to Ara H1, A 63.5 kD Allergen in peanuts," J. Allergy Clin. Immunol. 87:210 (1991).

Examiner's Signature Date Considered History

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

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		BURKS, et al., "Identification of peanut agglutinin and soybean trypsin inhibitor as minor legume allergens;" Int Arch Allergy Immunol. 105(2):143-9 (1994).
		BURKS, et al., "Isolation, identification, and characterization of clones encoding antigens responsible for peanut hypersensitivity," Int Arch Allergy Immunol. 107(1-3):248-50 (1995).
		CHAPMAN, "Monoclonal antibodies as structural probes for mite, cat, and cockroach allergens," Adv. Biosci. 74 (1989).
		*CHEN, et al., "Isolation and identification of hevein as a major IgE-binding polypeptide in Hevea latex," J. Allergy Clin. Immunol. 99(3):402-409 (1997).
		COCKRELL, et al., "Monoclonal antibody enzyme-linked immunosorbent assay (ELISA) for Ara H 1. A major peanut allergen," J. Aller. Clin. Immunol. 89:Abstract 613 (1992).
		COLMAN, "Production of proteins in the milk of transgenic livestock: problems, solutions, and successes," Am. J. Clin. Nutr. 63(4):639S-6455S (1996).
	<del></del>	COLMAN, A" Production of therapeutic proteins in the milk of transgenic livestock" Biochem. Soc. Symp. 63:141-147 (1998).
		*COOKE & SAMPSON, "Allergenic properties of ovomucoid in man," J. Immunol. 159(4):2026-32 (1997).
	/	DAY, "Genetic Modification of Proteins in Food," Critical Reviews in Food Science and Nutrition 36(S):S49-S67 (1996).

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		DEJONG, et al., "Food allergen (peanut)-specific TH2 clones generated from the peripheral blood of a patient with peanut allergy," J Allergy Clin Immunol. 98(1):73-81 (1996).						
		*DEMOLY, et al., "Anti-IgE therapy for asthma," American J Resp. Crit. Care Med. 155:1825-1827 (1997).						
		Directions for use, Pharmacia Diagnostics AB, Uppsala, Sweden 1985 (Revised 1988).						
		*EICHLER & HOUGHTEN, "Generation and utilization of synthetic combinatorial libraries," Mol. Med. Today 1(4):174-80 (1995).						
		ELSAYED, et al., "Synthetic allergenic epitopes from the amino-terminal regions of the major allergens of hazel and birch pollen," Int. Arch. Allergy Appl. Immunol. 89:410-415 (1989).						
		ESPANION, "Methods of production and perspectives for use of transgenic domestic animals," DTW Dtsch Tierarztl Wochenschr. 103(8-9):320-8 (1996).						
		FAHY, et al., "The effect of an anti-igE monoclonal antibody on the early- and late-phase responses to allergen inhalation in asthmatic subjects," American J Respir Crit Care Med 155:1828-1834 (1997).						
		FIELDS, et al., "Solid phase peptide synthesis utilizing 9-fluorenylmethoxycarbonyl amino acids," Int J Pept Protein Res. 35(3):161-244 (1990).						
		FOSTER, "Allergy Testing for Skin disease in the Cat In Vivo vs In Vitro tests," Veterinary Immunology 4(3):111-115 (1983).						
	/	*FUCHS, et al., "Ingredients for fat replacement," Food Tech. 51:82-87 (1997).						

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GREENE, "Characterization of allergens of the cat flea, Ctenocephalides felis: detection and frequency of IgE antibodies in canine sera," Parasit Immunology 15:69-74 (1993).					ection and frequency of IgE					
HALLIWELL, "Aspects of the Immunopa Immunopathology 17:483-494 (1987).				•	hogenisis of Flea Allergy Dermatitis in Dogs," Veterinary Immunology and					
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		HEFLE, et al., * 87:Abstract 20			ens using monoclonal and	tibodies J. Alle.	rgy and Clinical Immunology			
		HERIAN, et al. "Identification of soybean allergens by immunoblotting with sera from soy-allergic adults," Int. Arch.  Allergy Appl. Immunol. 92:193-198 (1990).								
		HSU et al., "Ini	nibition	of specific IgE resp	ponse in vivo by allergen	-gene transfer,"	Int Immunol 8:1405-1411 (1996	3).		
		KAMINOGAWA Biosci. Biotech,	Bioche	d allergy, oral tolera em. 60:1749-1756	ance and immunomodula i (1996).	tiontheir molec	ular and cellular mechanisms,"			
KEATING, et al., "Ipmunoassay of peanut allergens in food-processing material and finished foods," J. Allergy Immunol. 86:41-44 (1990).							nd finished foods," J. Allergy Clir.	· .		
							ities with the extensin family, the or, Plant J. 5(6):849-861 (1994).			
		KOHLER, et al. 497 (1975).	, "Cont	inuous cultures of	fused cells secreting ant	ibody of predefir	ed specificity," Nature 256:495-			
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				First Named Inventor	Gary A. Bannon			
				Group Art Unit	1643			
				Examiner Name				
Sheet	7	of	10	Attorney Docket Number	HS 102 CIP (2)			
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		OTHER ART NON PATENT LITERATURE DOCUMENTS
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		*KRIEG, et al., "CpG motifs in bacterial DNA trigger direct B-cell activation," Nature 374(6522):546-9 (1995).
		MCKEON, "IgG and IgE Antibodies Against Antigens of the Cat Flea, Ctenocephalides Felis Felis in Sera of Allergic and Non-allergic Dogs," Int. J. Parasitology 24(2):259-263 (1994).
		MONERET-VAUTRIN, "Modifications of allergenicity linked to food technologies," Allerg Immunol 30(1):9-13 (1998).
		NELSON, et al., "Treatment of anaphylactic sensitivity to peanuts by impromotherapy with injections of aqueous peanut extract," J. Allergy Clin. Immunol. 99:744-751 (1997).
		*NOON, "Prophylactic inoculation against hay fever," Lancet 1:1572-73 (1911).
		NORMAN, et al., "Multicenter study of several closes of ALLER-VAX® Cat peptides in the treatment of cat allergy,"  Journal of Allergy and Clinical Immunology 99:S127 (1997).
		OPPENHEIMER, et al., "Treatment of peanut allergy with rush immunotherapy," J Allergy Clin Immunol. 90:256-62 (1992).
		Phadebas Rast Radiommunoassay Reagents for 100 or 300 Tubes, Pharmacia Diagnostics AB, Uppsala Sweden 1985, Revised January 1988.
		*PISETSKY, "Immune activation by bacterial DNA: a new genetic code," Immunity 5(4):303-10 (1996).
		POLLART, et al., "Identification, quantitation, and purification of cockroach allergens using monoclonal antibodies," J. Allergy Clin. Immunol. 87:511-521 (1991).

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				First Named Inventor	Gary A. Bannon
1				Group Art Unit	1643
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Sheet	8	of	10	Attorney Docket Number	HS 102 CIP (2)

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	microsequencing," J. Allergy Clin. Immunol 99(3):385-395 (1997).
	PUCHEU-HASTON, "Allergenic cross-reactivities in flea-reactive canine serum samples," AJVR 5747:1000-1005 (1996).
<del></del>	RAZ, et al., "Intradermal gene immunization:the possible role of DNA uptake in the induction of cellular immunity to viruses," <i>Proc Nat Acad Sci USA</i> 91:9519-9523 (1994).
	ROLFSEN, "Detection of specific IgE antibodies towards cat flea (Ctenocephalides felis felis) in patients with suspected cat allergy," Allergy 42:177-181 (1987).
	ROONEY, et al., "Antiparallel, intramolecular triplex DNA stimulates homologous recombination in human cells," <i>Proc. Natl. Acad. Sci. USA</i> 92: 2141-2144 (1995).
	SAMPSON, et al., "Fatal and near-fatal anaphylactic reactions to food in children and adolescents," N Engl J Med 327:380-384 (1992).
	SAMPSON, "Food allergy and the fole of immunotherapy," J Allergy Clin. Immun. 90:151-52 (1992).
	SAMPSON, et al., "Mechanisms of food allergy," Annu. Rev. Nutr. 16:161-77 (1996).
	SCHEMMER, "Efficacy of Alum-Precipitated Flea Antigen for Hyposensitization of Flea-Allergic Dogs," Seminars in Vetefinary Meicine and Surgery (Small Animal) 2(3):195-198 (1987).
	SEVIER, et al., " Monoclonal Antibodies in clinical immunology," Clin. Chem. 27:11, 1797-1806 (1981).

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		SHANTI, et al., "Identification of tropomyosin as the major shrimp allergen and characterization of its IgE-binding epitopes," <i>J. Immunol.</i> 151:5354-5363 (1993).	
		SHIN, et al., "Biochemical and structural analysis of the IgE binding sites on Ara h1, an abundant and highly allergenic peanut protein," <i>J Biol Chem.</i> 273(22):13753-9 (1998).	
		STANLEY, et al., "Identification and mutational analysis of the immunodominant IgE binding epitopes of the major peanut allergen Ara h 2," Arch. Biochem. Biophys. 342:244-253 (1997).	
·		STANLEY, et al., "Peanut hypersensitivity. IgE binding characteristics of recombinant Ara h I protein," Adv Exp Med Biol. 409:213-6 (1996).	_
		STEINBERGER, et al., "Construction of a combinatorial IgE library from an allergic patient. Isolation and characterization of human IgE Fabs with specificity for the major timothy grass pollen allergen, PhI p 5," J. Biol. Chem. 271:10967-10982 (1996).	_
		SZOSTAK, "In vitro genetics," TIBS 19:89 (1992).	
		THOMAS, et al., "Purification of prembrane proteins," Meth. Enzymol. 182:499-520 (1990).	
		TWARDOSZ, "Molecular Characterization, Expression in Escherichia coli, and Epitope Analysis of a Two EF-Hand Calcium-Binding Birch Pollen Allergen, Bet v 4," Biochem. Biophys. Res. Commun. 239:197-204 (1997).	_
		VOLLEB, et al., "Enzyme-linked immunosorbent assay," Manual of Clinical Laboratory Immunology, (Rose, ed.), Chap.  17 Third Edition, pp. 99-109, 1986.	
		VRTALA, "High Level Expression in Escherichia coli and Purification of Recombinant Plant Profilins:Comparison of IgE Binding Capacity and Allergenic Activity," Biochem. Biophys. Res. Comm. 226:42-50 (1996).	_

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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					es interferons, activates natural killer cells					
		and inhibits tumor g	rowth," Microbiol. In	nmunol. 36(9):983-97 (1992).		ĺ				
	-	*ZIMMERMANN, et al., "CpG oligodeoxynucleotides trigger protective and curative Th1 responses in lethal r								
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